

SUPPORT FOR THE AMENDMENTS

Figure 3 has been amended to correct a typographical error. Support for the amendment is provided by paragraph [0111] of the specification.

Claims 7 and 10 have been canceled.

Claims 1, 6, 8, 9, and 11 have been amended.

Support for the amendment of Claim 1 is provided by paragraph [0114] of the specification. Support for the amendment to Claims 6, 8, 9, and 11 is provided by original Claims 6-11.

No new matter has been added by the present amendments.

REMARKS

Claims 1-14 are pending in the present application.

The objection to the drawings under 37 C.F.R. §1.83(a) is believed to be obviated by submission herewith of new Figure 3 in which a typographical error, Specifically, Figure 3 has been amended to remove a typographical error where reference identifier 4 was improperly indicated as a reference identifier 3. All the corrections are believed to be presented on the annotated drawing sheet and are reflected in the enclosed replacement drawing sheet. No new matter has been presented.

Withdrawal of this ground of objection is requested.

The rejection of Claim 6 under 35 U.S.C. §112, second paragraph, is obviated by amendment.

The Examiner has indicated that Claim 6 lacks antecedent basis for the limitation “the surfacing member”. Applicants have amended Claim 6 to depend from Claim 5, rather than Claim 1. Accordingly, antecedent basis for all claim terms is present.

Withdrawal of this ground of rejection is requested.

The rejections of:

- (a) Claims 1-3, 5, 6, 10, and 11 under 35 U.S.C. §103(a) over JP 2572621 (JP ‘621),
- (b) Claim 4 under 35 U.S.C. §103(a) over JP ‘621 in view of JP 2003-102761 (JP ‘761), and
- (c) Claims 7-9 under 35 U.S.C. §103(a) over JP ‘621 in view of JP 1-158762 (JP ‘762),

are respectfully traversed.

In the Office Action, the Examiner makes a series of obviousness rejections based on JP '621, with or without JP '761 and JP '762. JP '621 is discussed in paragraphs [0004] – [0005] of the specification (in correctly identified as “Japanese Patent 2572612”). As stated in the specification and acknowledged by the Examiner, JP '621 fails to disclose or suggest the flexural strength limitation, in particular the flexural strength after heat generation has come to an end. Despite this deficiency, the Examiner alleges there is nothing important about the flexural strength and that the skilled artisan would have found it obvious to one of ordinary skill to select the flexural strength in the claimed range to maintain component integrity. Applicants disagree.

The Examiner is reminded that a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result-effective variable.). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy). The Examiner has failed to establish that the flexural strength is a variable which achieves a recognized result and that this recognition resides in the art. Indeed, the Examiner's naked allegations of a link between flexural strength and thickness of the sheet material, as well as a desire to control flexural strength to maintain component integrity fails

to show that flexural strength is a variable which achieves a recognized result and that this recognition resides in the art.

Even if it is the Examiner's position that modification of JP '621 would have been within the general abilities of the skilled artisan, a statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art" is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). At best, the combined disclosures could be taken as an "invitation to experiment" or could be viewed as providing an "obvious to try" argument; however, "obvious to try" has long been held *not* to constitute obviousness. *In re O'Farrell*, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988). A general incentive does not make obvious a particular result, nor does the existence of techniques by which those efforts can be carried out. *In re Deuel*, 34 USPQ2d 1210, 1216 (Fed. Cir. 1995).

KSR International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007) does not eliminate the "obvious to try is not obvious" standard, as it clearly states that "obvious to try" may constitute obviousness, but only under certain circumstances. Specifically, *KSR* stated that the fact that a claimed combination of elements was "obvious to try" might show that such combination was obvious under 35 U.S.C. § 103, since, if there is design need or market pressure to solve problem, and there are finite number of identified, predictable solutions, person of ordinary skill in art has good reason to pursue known options within his or her technical grasp, and if this leads to anticipated success, it is likely product of ordinary

skill and common sense, not innovation. However, the Examiner offers nothing to show how these factors apply and whether there would be such an expectation or anticipated success.

Applicants respectfully submit that the Examiner has not offered any evidence that there is a recognized “design need or market pressure to solve the problem”. Indeed, JP ‘621, even taken with JP ‘761 and/or JP ‘762, makes no suggestion that such a need even exists. Further, the Examiner fails to show that there are a “finite number of identified, predictable solutions”. The Examiner also does not provide any evidence that a “person of ordinary skill in art has good reason to pursue known options within his or her technical grasp”. It is clear from JP ‘621, even taken with JP ‘761 and/or JP ‘762, that the artisan had no such reason to modify the various disclosures to arrive at the claimed invention. At best, all that the Examiner appears to provide is that arriving at the combination of components may be within the general abilities of the skilled artisan, but again this is not the proper standard for obviousness (*Ex parte Levengood*). Indeed, absent Applicants disclosure to serve as the guidepost, no objective reason to combine the teachings in a way that would place the artisan in possession of the claimed invention can be found.

Even if the Examiner has properly supported a *prima facie* case of obviousness, which Applicants submit is not the case, Applicants submit that that evidence of unobvious or unexpected advantageous properties, such as superiority in a property the claimed compound shares with the prior art, can rebut *prima facie* obviousness. (MPEP 716.02(a)) “Evidence that a compound is unexpectedly superior in one of a spectrum of common properties . . . can be enough to rebut a *prima facie* case of obviousness.” No set number of examples of superiority is required. *In re Chupp*, 816 F.2d 643, 646, 2 USPQ2d 1437, 1439 (Fed. Cir. 1987)” (see MPEP §716.02(a)). Applicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range. “The law is replete

with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

To this end, the Examiner is referred to Table 3-1 on page 87, which clearly show the benefits of the flexural strength limitation, in particular the flexural strength after heat generation has come to an end. For the Examiner's convenience, Table 3-1 is reproduced below:

	Thickness of Warming Device (mm)	Total Thickness of Heat Generating Sheets (mm)	Total Basis weight of Heat Generating Sheets (g/m ²)	Flexural Strength (N/cm)	
				Before Heat Generation	After Heat Generation
Example 3-1	0.89	0.4	300	0.029	0.077
Example 3-2	1	0.7	550	0.036	0.389
Example 3-3	2.41	1.8	1300	0.071	0.155
Example 3-4	4.38	3.5	2600	0.145	0.247
Example 3-5	7.0-8.0	1.1	850	0.261	
Comp. Example	1.5-4.5	-	4300	0.326	9.776
Comp. Example 3-2	1.3-1.5	-	2200	0.900	3.391

In paragraph [0327] of the specification, the results in Table 3-1 and the importance thereof are provided. Specifically, in paragraph [0327] it is emphasized that “the warming devices of Examples (the present invention) are thin and more flexible both before and after heat generation than those of Comparative Examples.”

Moreover, with respect to the comparison between the claimed invention and the warming devices disclosed in JP ‘621, at paragraph [0005] of the specification states with respect to JP ‘621:

Such a heat generating element of sheet form is used by, for example, putting the heat generating element in an air-permeable holder and applying or attaching the holder to a part of the body. A heat generating molded article of this type loses flexibility because iron powder cakes with progress of the exothermic reaction. *It becomes gradually hard and feels uncomfortable in long time use.* (emphasis added)

In view of the foregoing, Applicants submit that the claimed invention is not obvious in view of JP ‘621, even taken with JP ‘761 and/or JP ‘762. And, even if a *prima facie* case of obviousness were present, which it is not, the evidence provided would clearly rebut the same.

Nonetheless, Applicants wish to further note with respect to Claim 2 that JP ‘621 describes a molded sheet having a thickness of 5 mm in its example. However, at no point does JP ‘621 disclosed or suggest a thickness of 0.1 to 2.0 mm as claimed in Claim 2. According to JP ‘621, the sheet having a thickness as claimed in the present invention cannot be obtained due to a lack of strength. Thus, the thickness of 0.1 to 2.0 mm has been achieved for the first time by the production method of the present invention. Accordingly, JP ‘621 fails to provide render Claim 2 obvious for this additional reason.

With respect to Claim 3, Applicants submit that JP ‘621 discloses that the fibrous material to be used in a warming device is slightly beaten by a refiner or the like. It is


impossible for the fibrous material to have a CSF of 600 ml or less as claimed in Claim 3 by slight beating. Accordingly, JP '621 fails to provide render Claim 3 obvious for this additional reason.

In view of the foregoing, withdrawal of these grounds of rejection is requested.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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